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Abstract

Techniques for transmitting data with limited channel information are described. A transmitter (e.g., a base station) obtains channel information for a subset of multiple antennas used for data reception at a receiver (e.g., a terminal). The channel information may include at least one channel response vector for at least one antenna, which is a subset of the multiple antennas at the receiver. The transmitter derives multiple eigenvectors based on the channel information, e.g., using pseudo eigenbeamforming. The transmitter selects at least one eigenvector from among the multiple eigenvectors and transmits data with the selected eigenvector(s). The transmitter may select and use different subsets of eigenvector(s) in different time intervals.; The transmitter may arrange the multiple eigenvectors into multiple sets based on their eigenvalues, select at least one set based on a MIMO transmission rank, and select one eigenvector from each set.